



DEPARTMENT OF COMMERCE

International Trade Administration

Notice of Decision on Application for Duty-Free Entry of Scientific Instruments; University of Florida, et.al

This is a decision pursuant to Section 6(c) of the Educational, Scientific, and Cultural Materials Importation Act of 1966 (Pub. L. 89-651, as amended by Pub. L. 106-36; 80 Stat. 897; 15 CFR part 301). On November 22, 2022, the Department of Commerce published a notice in the *Federal Register* requesting public comment on whether instruments of equivalent scientific value, for the purposes for which the instruments identified in the docket(s) below are intended to be used, are being manufactured in the United States. *See Application(s) for Duty-Free Entry of Scientific Instruments, 87 FR 71302-03, November 22, 2022 (Notice)*. We received no public comments.

Docket Number: 23-001. Applicant: University of Florida, Department of Medical Engineering, 4202 E. Fowler Avenue, ENG 030, Tampa, FL 33620. Instrument: Bowl-shaped 1024 ultrasound transducer array. Manufacturer: Hebei ULSO Tech Company, Ltd., China. Intended Use: The instrument will be used to build up a real-time three-dimensional (3D) Photoacoustic Tomography (PAT) imaging system for a National Institutes of Health (NIH) granted research project. The goal of this research is to develop a novel photoacoustic imaging approach that will allow non-invasive, simultaneous three-dimensional visualization of all the embryos in mouse utero and track their birth/adulthood longitudinally to study the association between maternal alcohol exposure induced fetal hemodynamic changes and the outcome of fetal alcohol spectrum disorder (FASD) after birth.

Docket Number: 23-002. Applicant: University of South Florida, Department of Medical Engineering, 4202 E. Fowler Avenue, ENG 030, Tampa, FL 33620.

Instrument: Annular ring 256 ultrasound transducer array. Manufacturer: Hebei ULSO Tech

Company, Ltd., China. Intended Use: This instrument will be used to build up a real-time two-dimensional (2D) Photoacoustic Tomography (PAT) imaging system and a Thermoacoustic Tomography (TAT) imaging system, in which a high-quality transducer probe is the key part. The ultrasound signal generated from the tissue by absorption of pulsed laser in PAT or of microwave source in TAT will be collected by transducer elements from different angles. Using specific imaging reconstruction algorithm, the 2D images of the tissue could be reconstructed. The new PAT and TAT imaging system based on this new transducer probe will be used to study the neural activity and hemodynamic response in the brain of patients with epilepsy.

Docket Number: 23-003. Applicant: University of South Florida, Department of Medical Engineering, 4202 E. Fowler Avenue, ENG 030, Tampa, FL 33620. Instrument: L-band Microwave source. Manufacturer: Hebei ULSO Tech Co., Ltd., China. Intended Use: This instrument will be used to build up a real-time two-dimensional (2D) thermoacoustic tomography imaging (TAT) system. It will work with the annular ring-shaped transducer probe (another order). This novel TAT imaging system will be applied in the research of gene therapy, cancer-diagnosis and so on. This new L-band microwave has different center frequency and much stronger output power, will provide the capability to penetrate deeper in the tissue with better image quality.

Dated: December 14, 2022.

Gregory W. Campbell,
Director, Subsidies and Economic Analysis,
Enforcement and Compliance.